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ABSTRACT

This report presents an analysis to determine whether the availability of vocational-technical education in Minnesota meets the intent of the Perkins Act and the needs of Minnesotans. Chapter 1 analyzes both federal and state funding for postsecondary vocational-technical education for fiscal years 1986-92. It describes both Perkins Acts, the governance of the technical college system, and funding and enrollment trends for postsecondary vocational education. Chapter 2 analyzes both the federal and state funding for secondary vocational technical education. Data for fiscal years 1990-92 are combined with data collected and reported previously for fiscal years 1986-89. This chapter discusses governance, appropriations, and enrollment for secondary vocational education. Chapter 3 contains information on the availability of continuous and extension vocational education programs in Minnesota's technical colleges, high schools, and secondary cooperative centers. Chapter 4 lists the conclusions developed by the State Council on Vocational Technical Education on both postsecondary and secondary vocational education after review of the data presented. An epilogue raises some observations and issues that suggest areas for further study and deliberation. Contains 20 references. (YLB)

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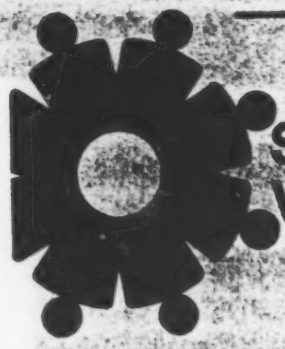

State Council on Vocational Technical Education

STATE OF MINNESOTA

Trends in the Distribution of State and Federal Funds for Vocational Education in Minnesota:

Fiscal Years 1986 to 1992

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March 1995

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EXECUTIVE SUMMARY

The State Council on Vocational Technical Education is charged by the Carl D. Perkins Act of 1990 with reviewing regularly the distribution of funds to vocational education in the state of Minnesota. In this study, the Council chose a period of seven years —from FY 1986 to FY 1992—and performed a trend analysis that reviews postsecondary and secondary vocational education federal and state funding in both direct and constant dollars. Also analyzed are enrollments in both systems, concluding with a comparison of funding data and enrollment data.

Because the time period under consideration covers six years of federal funding under the 1984 Carl D. Perkins Act and the first year under the 1990 Carl D. Perkins Act, both acts and their purposes are described in some detail. The primary difference between the two acts is that the 1984 Perkins Act was more highly focused in designating that 57 percent of the monies distributed throughout each state be targeted for the education of six categories of special needs individuals. The remaining 43 percent of monies distributed under the Perkins Act in each state was designated for the general improvement of vocational education programs.

The 1990 Perkins Act, while requiring assurances that many of the same special populations be served as those described in the 1984 Act, designates that 75 percent of the federal monies distributed in each state under this act be awarded to eligible recipients (local secondary school districts and postsecondary institutions). The funding formulas described by the 1990 Perkins Act were changed from the 1984 Act to favor school districts and postsecondary institutions located in areas with high concentrations of students with special educational or economic needs. One major addition to the 1990 Perkins Act was the distribution of seed monies for the development of Technology Preparation (Tech Prep) programs throughout the country.

Chapter one describes both Perkins Acts, the governance of the technical college system, and funding and enrollment trends for postsecondary vocational education. Chapter two discusses governance, appropriations, and enrollment for secondary vocational education. Chapter three discusses the availability of vocational programs for secondary and postsecondary vocational and technical education students in Minnesota. Chapter four lists the conclusions developed by the Council on both postsecondary and secondary vocational education after review of the data presented. An epilogue raises some observations and issues that suggest areas for further study and deliberation.

Postsecondary Conclusions

1. Although direct dollar federal funding to postsecondary vocational technical education increased slightly or stayed level, the constant dollar funding (corrected for inflation) was 4.6% lower in FY 1992 than it was in FY 1986.

2. Similarly, direct dollar state funding to postsecondary vocational technical education increased 20%, while constant dollar funding (corrected for inflation) declined by 3.3% between FY 1986 and FY 1992.
3. The number of full-time technical college students remained relatively steady throughout the seven-year period.
4. The number of technical college extension students increased dramatically between FY 1986 and FY 1991.
5. While postsecondary technical college enrollments have remained steady or increased, the number of high school graduates declined by about 12%. However, the number of graduates is expected to increase again after 1995.
6. Total constant dollar funding from both the federal and state was almost 3.5% lower in FY 1992 than in FY 1986.

Secondary Conclusions

1. Direct dollar federal appropriations for secondary vocational education increased by 50% between FY 1991 and FY 1992.
2. Direct dollar state appropriations for secondary vocational education decreased during the period studied from $21 million in FY 1986 to $12 million in FY 1992, a reduction of 44%.
3. Total constant dollar funding (corrected for inflation) for secondary vocational education available from both the federal and state governments declined by about 50% between FY 1986 and FY 1992.
4. Enrollment in secondary vocational education as measured by Average Daily Memberships (ADM) was steady to slightly decreased between the 1987-88 and 1991-92 school years.
5. Constant dollar funding per ADM (a measure of student enrollment) declined substantially from $960.71 in 1987-88 to $569.42 in 1991-92. This is a considerable decrease in funding.

INTRODUCTION

The State Council on Vocational Technical Education is required by the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 to (a) analyze and report on the distribution of funding for vocational education in Minnesota, (b) evaluate the availability of vocational education activities and services within the state, and (c) assess the distribution of financial assistance furnished under the Perkins Act, particularly with the analysis of the distribution of financial assistance between secondary and postsecondary vocational technical education programs (Pub. L. No. 101-392, Title I, Part B, §112, (d)(3) & (d)(6)).

Data on federal and state funding to secondary and postsecondary vocational technical education for fiscal years (FYs) 1986 through 1992 are compiled and analyzed in this report. This data is compared with enrollment levels in secondary and postsecondary vocational technical education for the same years so that trends for the seven year period from FYs 1986 to 1992 can be analyzed.

Funding and enrollment levels are directly related to each other. Increased funding can provide the support to develop an increased number of higher quality programs while helping to improve and update existing programs. Increased enrollments drive funding formulas to supply increased appropriations. The effect that funding and enrollment have on each other is also analyzed. This analysis is based on the compilation and comparison of federal and state funding trends with enrollment levels.

Funding and spending patterns for vocational technical education in Minnesota are the result of an interaction among federal, state, and local appropriations. While state funding far outweighs federal funding, Congress attaches sufficient money through its legislation to induce states to follow the policy direction indicated by the passage of educational legislation. The set-asides contained in the Perkins Act create a basic map of expected categorical funding and spending patterns for vocational technical education at the state level. This map of categorical funding also creates a basic collection of vocational technical education programs and services that should be offered locally throughout each state. The effect that federal and state funding patterns have on each other will be analyzed.

Under the 1984 Perkins Act, federal funding was allocated according to separate funding categories and set-asides that provided for the establishment and support of specific programs. This categorical funding encouraged high schools and technical colleges to target vocational technical education programs to various special populations such as those with disabilities and the economically disadvantaged. While the actual levels of federal categorical funding may be only a small percentage of the overall expenditures on vocational programs for these special populations within Minnesota, the categories draw attention to their educational needs.

As previously mentioned, state funding and spending on vocational technical education in Minnesota far outweigh federal expenditures. In fact, federal funds account for only nine to ten percent of the total expenditures on vocational technical education in Minnesota in any fiscal year. The high level of state funding and spending is one indicator of Minnesota's commitment to vocational technical education. Another indicator is the statewide availability of secondary and postsecondary vocational education institutions that provide many different types of quality vocational programs.

The goal of this analysis is to determine if the availability of vocational technical education in Minnesota meets the intent of the Perkins Act and the needs of Minnesotans. This determination is based on a trend analysis of federal and state funding and spending as well as the availability of vocational technical education programs. Conclusions are drawn from the trend analysis and compiled at the end of the report. In the epilogue following the conclusions, the authors consider issues and assumptions surrounding secondary and postsecondary vocational technical education that arose while compiling this information.

CHAPTER ONE

Postsecondary Appropriations and Enrollments: Fiscal Years 1986-1992

This section of the report will analyze both federal and state funding for postsecondary vocational technical education for FY 1986 through FY 1993. Special attention will be given to trends in funding when current data (FYs 1990-1993) is grouped with data reported in the Council's previous funds distribution report for FYs 1986-1989 (Christenson, Bonadurer, & Mercer, 1990).

Governance of Minnesota's Technical Colleges

Before an analysis of the distribution of funds to Minnesota can be made, one must understand the governance of Minnesota's postsecondary vocational education system, composed of 34 technical college campuses. There are several tiers to this governance structure. Because technical colleges are governed by their local school boards, most of the spending authority over a local college rests with the school board. The funding flows through the school board to the technical college based on a state funding formula driven by student enrollment at the technical college. Currently, many technical colleges have organized into regions to provide coordinated services that meet regional industry and employment needs. Table 1 lists these regional technical colleges and the cities and towns in which campuses are located.

School board governance of the technical colleges provides for strong local control of vocational technical education programs that are supposed to meet local industry and community needs. However, this governance structure limits the ability of the State Board of Technical Colleges (SBTC) to implement a consistent state strategy for postsecondary vocational technical education. Except for categorical funding restrictions, the SBTC has little direct influence on how the local districts spend program-level funding at their local technical college. While it is crucial for the technical college to address the needs of the surrounding community, local community interests may diverge from the needs of Minnesota's economy as a whole. Currently, there are four public postsecondary educational systems within Minnesota—technical colleges, community colleges, state colleges and universities, and the University of Minnesota. Of these systems, the technical college system is the only one in which the local institution is presently managed by local schools boards. In the summer of 1995 the technical colleges, community colleges and state colleges and universities will merge to form the Minnesota State Colleges and Universities (MnSCU).

Table 1: Minnesota's Technical Colleges and Campus Locations

Technical Colleges	Campus Locations
1. Alexandria	Alexandria
2. Anoka-Hennepin	Anoka
3. Brainerd/Staples	Brainerd, Staples
4. Dakota County	Rosemount
5. Duluth	Duluth
6. Hennepin	Brooklyn Park, Eden Prairie
7. Hutchinson/Willmar	Hutchinson, Willmar
8. Minneapolis	Minneapolis
9. Minnesota Riverland	Austin, Faribault, Rochester
10. Northeast Metro	White Bear Lake
11. Northwest	Bemidji, Detroit Lakes, East Grand Forks, Moorhead, Thief River Falls, Wadena
12. Pine	Pine City
13. Range	Eveleth, Hibbing,
14. Red Wing/Winona	Red Wing, Winona
15. St. Cloud	St. Cloud
16. St. Paul	St. Paul
17. South Central	Albert Lea, Mankato
18. Southwestern	Canby, Granite Falls, Jackson, Pipestone

At the state level, the SBTC allocates funds to technical colleges according to a number of different funding categories. The primary funding categories are:

1. **Instruction and instructional support.** This category covers funding for staff, supplies, and equipment for all credit- and hour-based instruction.
2. **Student support.** This category covers funding for staff, supplies, and equipment needed to provide student support services.
3. **Institutional support.** This category covers funding for (a) executive management provided by the technical college presidents' offices, (b) institutional services including personnel management, purchasing, business office and budgeting, (c) expenditures associated with the six area agriculture coordinators, and (d) expenditures for marketing, communications, research, planning, and outreach.
4. **Debt service.** The category covers funding for the SBTC's portion of the long-term debt on technical college facility buildings.

Funding Patterns of the Perkins Act

The level of federal funding that Minnesota received under the Carl D. Perkins Vocational Education Act of 1984

(Pub. L. 98-524) and the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 (Pub. L. No. 101-392) was and is based on the population and per capita income of the state. Minnesota receives about two percent of the total Perkins funds allocated nationwide during each fiscal year. The Perkins Acts were broken down into separate funding categories called titles and each had further subdivisions. Some titles contain formulas that stipulate how each state may distribute its allocation to local school districts and postsecondary institutions.

The State Boards of Education and Technical Colleges developed an agreement specifying how the funding appropriations in each funding category would be divided between secondary and postsecondary vocational technical education. Each of the governing boards then administer their respective Perkins funds. During the fiscal years representing the focus of this study (FYs 1986-92), postsecondary vocational technical education received no less than 88 percent of Perkins funds distributed to Minnesota in any given year.

The Purpose by Titles of the 1984 Perkins Act

The 1984 Perkins Act contained five titles. The following section describes the titles of the 1984 Perkins Act and the goals of each. Funding patterns and trends for FY 1986 through FY 1991 are reported in Table 3. FYs 1986-91 are separated from FY 1992 because the amended Carl D. Perkins Vocational and Applied Technology Education Act passed by Congress in 1990 used a different set of funding categories to allocate monies. The 1990 Perkins Act took effect on July 1, 1991, which is the beginning of FY 1992. The funding patterns for FY 1992 are reported in Table 4.

Titles I and IV

Title IA described how the Perkins Act monies were to be allocated, both at the national level and across the states. Minnesota received approximately two percent of the total Perkins funds distributed across the states according to the size of its population. Title IA further specified what proportion of its federal allocation each state may spend on parts A and B of Title II monies and on state-level administration (7%). Part B of Title I described state organizational and planning responsibilities under the Perkins Act, including state administrative duties, operation of the state council, and development of the state plan.

Title IV declared national objectives and activities for research and improvement of vocational education; it also described federally-funded programs to meet these goals. These were to include a National Assessment of Vocational Education (NAVE), The National Center for Research in Vocational Education (NCRVE), a Vocational Education Data System (VEDS), and a National Council on Vocational Education.

To provide national leadership and direction in areas that were determined to be high priorities by Congress, Title IV also described Congress' intention to provide seed money for demonstration programs in public and private sector cooperation, state-operated pools for lending high tech—thus, often prohibitively expensive—equipment to local vocational programs around the state, centers for dislocated and older workers, and bilingual vocational education. Congress failed to fund several of these demonstration programs during the life of the Act.

Titles II and III

The primary programs assisted by the 1984 Perkins Act fall under Titles II and III. Title II was the basic state grant from the federal government and was divided into two parts. Part A of Title II constituted 57 percent of the Perkins allocation to Minnesota. The funds were divided into several categories that were tailored to serve populations with special needs. Title IIA funding was distributed across six funding categories according to the proportions of the total state grant described in Table 2.

Under the 1984 Perkins Act, funds for programs serving persons with disabilities, the disadvantaged, and adults were distributed by formula to the technical colleges. Funds supporting sex equity efforts and vocational programs for single parents and criminal offenders were distributed through a request-for-proposal (RFP) process. In Minnesota, each technical college was required to submit an Assurance Action Plan to be eligible to receive Title IIA funds. Before Title IIA funds were released, the Assurance Action Plan was reviewed by the State Board of Technical Colleges to ensure that the individual technical colleges were meeting federal funding guidelines required for the set-aside dollars (Minnesota Board of Vocational Technical Education, 1989, p. 171). The State Board of Education did not require school districts and secondary cooperative centers to apply for Title IIA funds. However, school districts could submit a proposal for these funds if they wished. The Title IIA funds, which were awarded through an RFP process, were open to all vocational schools in Minnesota, not just those in economically depressed areas.

The 1984 Perkins Act defined an economically depressed area as an economically integrated area within the state in which a chronically low level of economic activity or deteriorating economic base has caused a high rate of unemployment and a large concentration of low income families (Title V, Part B, §521, 13). Minnesota's economically depressed areas are located primarily outside of the metropolitan corridor stretching from Rochester through the Twin Cities to St. Cloud.

Part B of Title II accounted for 43 percent of the Perkins funds allocated to Minnesota under the 1984 Perkins Act. These funds were earmarked for the improvement of vocational programs. The federal government allowed each state considerable discretion in

Table 2: 1984 Perkins Act - Title IIA Funding Categories

Disadvantaged	22.0%
Persons with Disabilities	10.0%
General Adult	12.0%
Single Parent	8.5%
Sex Equity	3.5%
Incarcerated Criminal Offenders	1.0%
Total	57.0%

spending these funds. In Minnesota, Title IIB appropriations were distributed by formula and funded a variety of new and expanded programs. Title IIB activities included new program development and implementation, staff development, program and curricula improvement, and research and development. However, if a new program initiated with Title IIB monies continued for over three years, the final regulations for the Perkins Act required the state or local education agencies to assume all funding for the program (Federal Register, August 16, 1985, §401.59).

Title III of the 1984 Perkins Act was divided into five categories of special programs that Congress intended for states to support. These were (a) vocational education delivery by community-based organizations, (b) consumer and homemaking education, (c) adult training/retraining, (d) vocational counseling/guidance, and (e) industry-education partnerships for training in high technology occupations. During FYs 1986-91, Minnesota received funding for community-based and consumer-homemaking programs only (State Board of Technical Colleges, 1991).

Title V of the 1984 Perkins Act simply stated federal administrative provisions for payments to the states, maintenance procedures, and audits.

Purpose by Titles of the 1990 Perkins Act

The 1990 Act is divided into seven titles. Titles I through V are somewhat parallel to the 1984 Act. Title VI addresses some miscellaneous legislative amendments, including the establishment of an Office of Correctional Education in the U. S. Department of Education. Title VII merely stipulates the effective date of the act (July 1, 1991) because the 1990 Perkins Act was not actually passed until 1991.

Titles I and IV

Title I under the 1990 Perkins Act states the proportion of the Title II basic grant that can be used by each state for funding basic programs, special programs, and the administration and supervision of the Perkins Act. In addition Title I provides 2.5 percent of total federal appropriations for the Perkins Act to be set aside for national-level programs, while all other funds go directly to the states through basic state grants and special programs. Under the basic state grant, states may use 8.5 percent of their basic grant for state programs and state leadership. The proportion of the basic grant allowed for state-level administration was reduced to 5 percent.

In its description of state organizational and planning responsibilities, Title I differs from the 1984 Act in several respects. It required that each state establish a Committee of Practitioners which will review, critique, and propose revisions to a system of performance standards and measures for secondary, postsecondary and adult vocational education programs developed and implemented by the appropriate (secondary or postsecondary) agencies. Title I also required that state-level administrators of programs for handicapped, disadvantaged, and ESL (English as a Second Language) students review local implementation plans to ensure that these students are being served. Title IV describes many of the same national programs established under the 1984 Perkins Act.

Title II

Title II, Part A, describes the required and allowable uses of Perkins funds for state-level vocational programs and leadership activities. Part B of Title II mandates that monies be spent on programs for single parents, displaced homemakers, single pregnant women and sex equity and permits the RFP process to be utilized in distributing grants to such programs. It also requires the sole state agency to designate one or more correctional agencies to be responsible for the administration of the one percent (of the total state Perkins allocation) correctional education money on behalf of the state. The proportions of the state allocation allowed to categories under Titles II and III of the 1990 Perkins Act are described in Table 3.

Title II, Part C, designates funding formulas very different from those used under the 1984 Perkins Act to determine the distribution of basic state grant monies to eligible recipients (local institutions) in secondary and postsecondary vocational education. Title IIC defines the formulas to be used to distribute funds to secondary or postsecondary programs with respect to the proportions of special populations—previously identified as such under existing federal legislation—attending an institution. For example, the Title II funds for postsecondary and adult education programs distributed to local institutions are allocated based on the proportion of Pell Grant recipients and recipients of assistance from the Bureau of Indian Affairs located within that institution's student population.

Minnesota reports that the statistical data on Bureau of Indian Affairs grantees have lacked sufficient reliability and will not be used in combination with the Pell Grant data to calculate the allocation to postsecondary technical colleges. As an example, the Minneapolis and St. Paul technical colleges received 7.3 percent and 8.5 percent respectively of the state's 1992 postsecondary funds, due to the large proportions of Pell Grant recipients among their student bodies (State Board of Technical Colleges, 1991, pp. 88-90).

Table 3: 1990 Perkins Title II and III Funding Categories

Title II—Basic Grant		
Part A.	State Programs and State Leadership	8.5%
Part B.	Sex Equity/ Single Parent	12.0%
	Criminal Offenders	1.0%
Part C.	Eligible Recipients	75.0%
Title III—Special Programs		
Part A:	Community Based	2% of funds allotted by Congress for these programs are allocated to Minnesota (approx. 2% of U. S. population)*
Part B:	Consumer-Homemaking	
Part E:	Tech Prep	

*Allocated by Sole State Agency to local districts and schools by request-for-proposal.

Table 4: Perkins Funding and Categories for FYs 1986-1991

Funding Category	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991
State Administration (7%)						
Secondary	$ 85,000	$ 65,569	$ 69,818	$ 68,983	$ 68,983	$ 68,983
Postsecondary	792,103	836,346	882,260	871,658	871,658	874,201
Total	$ 877,103	$ 899,915	$ 952,078	$ 940,641	$ 940,641	$ 943,184
Title IIA: Basic Grant						
Criminal Offenders (1%)						
Secondary	$ 45,000	$ 48,484	$ 51,295	$ 50,676	$ 50,676	$ 51,377
Postsecondary	65,969	71,076	75,196	74,295	74,295	73,932
Total	$ 110,969	$ 119,560	$ 126,491	$ 124,971	$ 124,971	$ 125,309
Disadvantaged (22%) *						
Secondary	$ 300,000	$ 323,227	$ 341,962	$ 337,896	$ 337,896	$ 330,815
Postsecondary	2,141,308	2,307,097	2,440,825	2,411,463	2,411,463	2,425,978
Total	$ 2,441,308	$ 2,630,324	$ 2,782,787	$ 2,749,359	$ 2,749,359	$ 2,756,793
General Adult (12%) *	$ 1,331,622	$ 1,434,722	$ 1,517,884	$ 1,517,884	$ 1,499,651	$ 1,503,705
Handicapped (10%) *						
Secondary	$ 230,000	$ 248,814	$ 262,178	$ 259,065	$ 259,065	$ 263,148
Postsecondary	879,685	947,788	1,002,725	990,644	990,644	989,940
Total	$ 1,109,685	$ 1,196,602	$ 1,264,903	$ 1,249,709	$ 1,249,709	$ 1,253,088
Sex Equity (3.5%)						
Secondary	$ 100,000	$ 107,742	$ 113,987	$ 112,630	$ 112,630	$ 114,031
Postsecondary	288,390	310,719	328,729	324,768	324,768	324,550
Total	$ 388,390	$ 418,461	$ 442,716	$ 437,398	$ 437,398	$ 438,581
Single Parent (8.5%)						
Secondary	$ 200,000	$ 215,485	$ 227,975	$ 225,198	$ 225,198	$ 223,676
Postsecondary	743,233	800,776	847,193	837,055	837,055	841,449
Total	$ 943,233	$ 1,016,261	$ 1,075,168	$ 1,062,253	$ 1,062,253	$ 1,065,125
Title IIB						
Improvement (43%) *						
Secondary	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Postsecondary	4,771,646	5,141,087	5,382,434	5,313,748	5,373,748	5,136,393
Total	$ 4,771,646	$ 5,141,087	$ 5,382,434	$ 5,313,748	$ 5,373,748	$ 5,136,393
Title III:Special Programs						
Adult Training	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Community-Based	$ 0	$ 118,591	$ 100,559	$ 112,645	$ 142,371	$ 174,427
Consumer-Homemaking						
Secondary	$ 205,753	$ 210,328	$ 225,412	$ 225,412	$ 225,412	$ 225,412
Postsecondary	350,338	328,972	338,117	338,117	338,117	338,117
Total	$ 556,091	$ 539,300	$ 563,529	$ 563,529	$ 563,529	$ 563,529
Counseling/Guidance	0	$ 0	$ 0	$ 0	$ 0	$ 0
High Tech	0	$ 0	$ 0	$ 0	$ 0	$ 0
Total Appropriation	**$12,530,047**	**$13,513,823**	**$14,208,549**	**$14,072,137**	**$14,143,630**	**$13,960,134**

* Allocated by Formula. All other funds allocated by request-for-proposal.
(Source: State Board of Voc. Tech. Educ. Worksheet for Dedicated Federal Aid, FYs 1986-1991) Figures not adjusted for inflation.

Title III

Under Title III support is provided for nine special programs. Minnesota received funding for three of these programs: (a) community-based organizations, (b) consumer and homemaker education and services, and (c) Tech Prep education. Technology Preparation is a new concept introduced in the 1990 Perkins Act. The Tech Prep Education Act (Title III, Part E of the 1990 Perkins Act) provides for grants to consortia composed of local education agencies and postsecondary education institutions for the development and operation of four-year programs which award an associate degree or two-year diploma. The State Board of Technical Colleges and the State Board of Education established a joint boards task force to implement Tech Prep in Minnesota as defined in the 1990 Perkins Act. The task force is responsible for the design of a model Tech Prep program and for assuring that any Tech Prep program meets the requirements of the Perkins Act (State Board of Technical Colleges, 1991, p. 107).

Perkins Funding Trends

Table 4 (page 9) demonstrates that direct appropriations to Minnesota under the 1984 Perkins Act remained relatively steady over the six-year period. While there was a slight increase from FY 1986 through FY 1988, funding then remained level or declined slightly through FY 1991. As indicated in Table 5, this trend was reversed in FY 1992 under the 1990 Perkins Act which allocated Minnesota about $1,000,000 more than it had received in FY 1991.

Table 5: Perkins Funding and Categories for FY 1992

Funding Category	Secondary	Postsecondary	Total
Title I			
State Administration (5%)	$ 89,836*	$ 583,092	$ 672,928
Title II			
Part A: State Programs and State Leadership (8.5%)	228,254	915,724	1,143,978
Part B: Sex Equity (3.5%) **	87,716	350,865	438,581
Single Parent (8.5%) **	213,025	852,100	1,065,125
Criminal Offenders (1%) **	53,834	80,752	134,586
Part C: Eligible Recipients (75%) *	933,688	9,160,238	10,093,926
Title III			
Part A: Community-Based **	0	189,655	189,655
Part B: Consumer-Homemaking **	225,412	338,117	563,529
Part E: Tech Prep **	0	1,050,163	1,050,163
Total	**$1,831,765**	**$ 13,520,706**	**$ 15,352,471**

* Allocated by Formula.
** Allocated by request-for-proposal.
(Source: State Board of Vocational Technical Education Worksheet for Dedicated Federal Aid, FY 1992)

Perkins Funding for Secondary and Postsecondary Vocational Education

One of the primary funding trends under the Perkins Act is the steady increase of funds to postsecondary vocational education throughout the seven year period. After modest fluctuations between FY 1986 and FY 1991, federal funds for secondary vocational education were increased by over 40 percent between FY 1991 and FY 1992. This was due in part to adjustments in the agreement between the State Board of Education and the State Board of Technical Colleges concerning the proportion of federal funds designated for secondary vocational education. However, this adjustment was not made at the expense of postsecondary vocational and technical education, which also received an $838,000 increase in the same year (see Table 6).

Constant Dollar Perkins Funding

While direct Perkins appropriations have remained level or increased slightly from FY 1986 to FY 1992, constant dollars (corrected for inflation) have actually declined (Table 7). When inflation is factored in, federal funding increased from FYs 1986-88 but then decreased steadily through FY 1992 so that constant dollar federal funding for postsecondary vocational education under the Perkins Act in FY 1992 was actually 4.6 percent less than in FY 1986.

Constant Dollar State Appropriations

As Table 8 indicates, state support of postsecondary vocational technical education in Minnesota kept pace with inflation for six of the seven years under study. Even though direct dollar state appropriations increased by over 33 million dollars between FY 1986 and FY 1991, state support for the technical college system was increasing barely faster than inflation when these funding figures are adjusted for inflation. In FY 1992,

Table 6: Split of Perkins Funds Between Secondary and Postsecondary Vocational Technical Education FYs 1986-92

Year	Secondary Funding	Postsecondary Funding	Total
FY 1986	$ 1,165,753	$ 11,364,294	$ 12,530,047
FY 1987	$ 1,217,649	$ 12,297,174	$ 13,514,823
FY 1988	$ 1,292,627	$ 12,915,922	$ 14,208,549
FY 1989	$ 1,279,860	$ 12,792,277	$ 14,072,137
FY 1990	$ 1,279,860	$ 12,863,770	$ 14,143,630
FY 1991	$ 1,277,442	$ 12,682,692	$ 13,960,134
FY 1992	$ 1,831,765	$ 13,520,706	$ 15,352,471

(Source: State Board of Vocational Technical Education Worksheet for Dedicated Federal Aid, FYs 1986-1992)

Table 7: Federal Funding to Postsecondary Vocational Technical Education FYs 86-92

Year	Federal Appropriation (Direct)	National GNP Deflator	Federal Appropriation (constant)	Constant Dollar Change From FY 1988	Percent Change From FY 1986
FY 1986	$ 11,364,294	1.0	$ 11,364,294	Base Year	Base Year
FY 1987	$ 12,297,174	1.03199	$ 11,915,982	$ 551,688	4.9%
FY 1988	$ 12,915,922	1.07121	$ 12,057,320	$ 693,026	6.1%
FY 1989	$ 12,792,277	1.12074	$ 11,414,134	$ 49,840	0.4%
FY 1990	$ 12,863,770	1.16822	$ 11,011,428	$ (352,866)	-3.1%
FY 1991	$ 12,682,692	1.21569	$ 10,432,505	$ (931,789)	-8.2%
FY 1992	$ 13,520,706	1.24768	$ 10,836,678	$ (527,616)	-4.6%

Note: Constant dollar appropriations are calculated by dividing direct dollar appropriations by the GNP deflator.

Table 8: State Appropriations to Postsecondary Vocational Technical Education FYs 1986-92

Year	State Appropriation (Direct)	National GNP Deflator	State Appropriation (Constant)	Constant Dollar Change From FY 1986	Change From FY 1988
FY 1986	$ 137,163,809	1.000	$ 137,163,809	Base Year	Base Year
FY 1987	$ 141,155,290	1.03199	$ 136,779,707	$ (384,102)	-0.3%
FY 1988	$ 151,749,400	1.07121	$ 141,661,672	$ 4,497,863	3.3%
FY 1989	$ 158,685,600	1.12074	$ 141,590,021	$ 4,426,212	3.2%
FY 1990	$ 165,952,000	1.16822	$ 142,055,435	$ 4,891,626	3.6%
FY 1991	$ 170,586,428	1.21569	$ 140,320,664	$ 3,156,855	2.3%
FY 1992	$ 165,466,000	1.24768	$ 132,618,941	$ (4,544,868)	-3.3%

(Source: State Board of Technical College Accounting Reports for FYs 1986-1992)

this consistency was eroded in both real and constant dollars with a five million dollar cut in direct state appropriations that reduced the state's support of the technical college system in constant dollars to 3 percent below the FY 1986 level. However, funding trends for educational institutions make better sense when they are compared with enrollment trends.

Enrollment Units

One measure of enrollment at the technical colleges is the full year equivalency (FYE). The FYE can be measured by the number of credits or the number of course hours a full-time student would take. One FYE is attained when a student takes 45 credits during the three-term (fall, winter, and spring) academic year. For those students who are taking individual courses, customized training or extension classes, the FYE is based on hours rather than credits. The non-credit or hour based FYE is equal to 1,080 hours of class time for a full-time student. Both units measure student participation in terms of a full-time student. Another measure of student participation is the headcount. The unduplicated headcount merely counts how many students are in classes on a given day.

Comparison of Funding and Enrollment Trends

Enrollment in credit-based programs (Table 9) dropped in FY 1989 to a low of 6.9 percent below the base year, but leveled somewhat by FY 1992. It appears that decreased enrollment in credit-based programs was compensated for by increased enrollments in extension courses (Table 10) until FY 1992. In FY 1992 many courses went to a credit-based rather than hour-based system which, unfortunately, makes it appear there was a decline in extension enrollment that year.

Another measure of student participation that is helpful when trying to determine

Table 9: Technical College Enrollments in Credit-Based Programs FYs 1986-1992

Year	Credit-Based (FYE)	Change from FY 1986
FY 1986	33,788	Base year
FY 1987	32,272	-4.5%
FY 1988	32,316	-4.4%
FY 1989	31,460	-6.9%
FY 1990	32,057	-5.1%
FY 1991	33,012	-2.3%
FY 1992	33,389	-1.2%

(Source: Minnesota Higher Education Coordinating Board, 1987-1993)

Table 10: Technical College Enrollments for Extension Courses FYs 1986-1992

Year	Hour-Based (FYE)	Change from FY 1986
FY 1986	5,528	Base Year
FY 1987	6,844	23.8%
FY 1988	7,486	35.4%
FY 1989	8,072	46.0%
FY 1990	8,402	52.0%
FY 1991	8,115	46.8%
FY 1992	5,204	-5.7%

(Source: Minnesota Higher Education Coordinating Board, 1987-1993)

trends is the unduplicated headcount. Between 1991 and 1992, the headcount increased from 59,741 to 75,854 (Minnesota Higher Education Coordinating Board; 1992, 1993). This dramatic increase in headcount and the equally dramatic increase in extension credits may be taken as a signal that an increasing number of students are attending technical colleges on a course-by-course basis rather than on a program basis. This would mean that more individuals were being served but in less than total programs or in greater numbers of shorter programs, such as customized training.

Total appropriation increases for the period FYs 1986 to 1991 (Table 11) remained equal to or slightly greater than inflation. In FY 1992 appropriations declined sharply to 3.4 percent less in constant dollars than FY 1986. Taken with the information on student enrollments, it appears that more students are attending technical colleges for less than a full program and there are fewer funds available to meet their needs.

Summary

The tables in chapter one illustrate federal and state funding trends for secondary and postsecondary vocational education in Minnesota during the period of FYs 1986-1992. Chapter two of this report examines and discusses these trends more thoroughly with respect to secondary vocational education. The level of direct federal funding to postsecondary vocational technical education in Minnesota remained well ahead of inflation during FYs 1987 and 1988. In FY 1989, direct federal appropriations had eroded to a point of mere equivalency in constant dollars with FY 1986. Actual dollar reductions in federal aid fell enough over the next two years that even an $800,000 increase between FYs 1991 and 1992 still failed to keep pace with the effects of inflation over the seven-year period.

The figures for direct state appropriations to postsecondary vocational technical education are more positive over the years

Table 11: Total Appropriation to Technical Colleges Corrected for Inflation FYs 1986-92

Year	State and Federal Appropriations (Constant)	Dollar Change From FY 1986	Percent Change From FY 1986
FY 1986	$ 148,528,103	Base Year	Base Year
FY 1987	$ 148,695,689	$ 167,586	0.1%
FY 1988	$ 153,718,992	$ 5,190,889	3.5%
FY 1989	$ 153,004,155	$ 4,476,052	3.0%
FY 1990	$ 153,066,863	$ 4,538,760	3.1%
FY 1991	$ 150,753,169	$ 2,225,066	1.5%
FY 1992	$ 143,455,619	$ (5,072,484)	-3.4%

representing the focus of this report, generally keeping a few percentage points ahead of inflation. However, due to a substantial reduction in state appropriation between FYs 1991 and 1992, the constant dollar appropriation for FY 1992 was 4.5 million (or 3.3%) below the base year of FY 1986.

The increased funding in 1992 was due to differences in the funding formulas of the 1990 Perkins Act. These differences—utilizing different proportions of various demographic subgroups in each state's population than the 1984 Perkins Act used—benefitted Minnesota over other states. The State Board of Education and the State Board of Technical Colleges also agreed at this time to spend some of this increase in Perkins funding on greater support for secondary vocational education.

Direct funding levels can be misleading when inflation is disregarded. While it appears that more funding entered the Minnesota postsecondary vocational education system during the period studied, the effective dollar amount was declining. When corrected for inflation, total appropriations to Minnesota's technical colleges from both the federal and state levels were five million dollars (or 3.4%) less at the end of the FYs 1986-92 period than at the beginning.

CHAPTER TWO

Secondary Vocational Education Appropriations and Enrollments: Fiscal Years 1986-1992

This section of the report will analyze both the federal and state funding for secondary vocational technical education. Data for the FY 1990 through FY 1992 will be combined with data collected and reported on previously for FYs 1986-89.

Governance of Secondary Vocational Education in Minnesota

Secondary vocational technical education, a part of the state's elementary and secondary education system, is governed by local school districts and the State Board of Education (SBE). Both federal and state secondary vocational education appropriations are allocated to the local school districts to fund programs in the high schools and secondary cooperative centers.

Constant Dollar State and Federal Appropriations

Table 12 is a compilation of the state and federal funding for secondary vocational education for the same period that was examined for postsecondary programs. Again, the funding amounts were corrected for inflation in order to demonstrate more clearly the constant dollar amounts available to secondary vocational education during these years.

The State Board of Education allocates its funds on a school year rather than on a fiscal year basis. The year in which the school year ends is the same as the fiscal year. For example, school year 1985-86 is the same as FY 1986. Note that the federal funds allocated to secondary vocational education were fairly constant from 1985 to 1991 with a significant increase in 1991-92. State funding, however, during the 1988-89 school year declined by almost 50 percent.

The net effect is that, despite a total increase of 26 percent in federal funding (constant dollars) over the time period, the 1991-92 level of funding to secondary vocational education is only 49 percent of the 1985-86 level, when adjusted for inflation.

The primary reason for this decline in funds was that the Legislature eliminated many forms of categorical aid and chose to use a block grant approach in funneling aid to local school districts. General education funds were allocated directly to school districts to spend according to locally determined needs. The assumption was that school districts would choose to continue to use the same portion of funds—as they had spent

Table 12: State and Federal Funds for Secondary Vocational Education: 1985-86 to 1991-92 School Years

School Year	Federal Funds	State Funds	Total Funds	National GNP Deflator	Total Funds (Constant)
1985-86	$ 1,165,753	$21,117,400	$22,283,153	1.00000	$22,283,153
1986-87	$ 1,217,649	$19,815,100	$21,032,749	1.03199	$20,380,768
1987-88	$ 1,292,627	$19,502,600	$20,795,227	1.07121	$19,412,839
1988-89	$ 1,279,860	$12,891,000	$14,170,860	1.12074	$12,644,199
1989-90	$ 1,279,860	$11,471,000	$12,750,860	1.16822	$10,914,776
1990-91	$ 1,277,442	$11,720,000	$12,997,422	1.21569	$10,691,411
1991-92	$ 1,831,765	$11,837,640	$13,669,405	1.24768	$10,955,858

(Source: State Board of Vocational Technical Education Worksheet for Dedicated Federal Aid, FY 1986-1992) GNP deflators based on national figures supplied by the Minnesota Department of Finance.

under categorical funding—for secondary vocational education. This did not prove to be the case.

This decline in funding also occurred during a period in which secondary vocational educators were having a difficult time in clearly stating the mission of secondary vocational education and in justifying its expense. The Legislature requested and received a report detailing a clearly restructured model for secondary vocational education in late 1988 (Randall, 1988).

Comparison of Funding and Enrollment Trends

The unit of enrollment used by secondary vocational education is the ADM or average daily membership (of students) for that program. One ADM represents one student or a combination of students attending classes for 1,050 clock hours during the academic year. It is a method of measuring student contact time.

Funding per ADM is rather a crude measure with which to gauge the decline in funding per student. Some school districts in Minnesota have not applied for Perkins funds for several reasons, thus vocational programs that serve some of the students who compose the ADM count in secondary education receive no federal funding. Some students receive a higher share of the Perkins monies than others. Perkins funds may be accessed to serve students from special populations through multiple line items, such as those for technical tutors, interpreters for the deaf, or vocational evaluators. Yet, on the average, it is a valid measure with which to compare relative funding on a per student basis over a period of time.

Table 13 illustrates secondary vocational education enrollment data for the years 1985 to 1992. Although secondary vocational enrollment, as measured by ADMs, remained relatively stable over the period studied, the combined funding available for these students has declined tremendously. Not only

Table 13: Enrollments in Secondary Vocational Education 1985-86 to 1991-92

School Year	Enrollment ADM	Percent Change in ADM	State and Federal Funding	Funding Per ADM	Percent Change in Funding Per ADM
1985-86	*		$22,283,153	*	*
1986-87	*		$20,380,855	*	*
1987-88	20,206.84	Base Year	$19,412,839	$960.71	Base Year
1988-89	21,779.62	7.8%	$12,655,591	$581.07	–36.8%
1989-90	20,933.08	3.6%	$10,914,776	$521.41	–40.8%
1990-91	19,277.93	–4.6%	$10,691,395	$554.59	–34.6%
1991-92	19,240.33	–4.8%	$10,955,858	$569.42	–31.0%

* Enrollment for these years was calculated by headcount based on the total number of students in each educational program. One student can generate several headcounts if that student is enrolled in more than one program.

(Source: ADM figures supplied by Lois Pirsig of the Minnesota Department of Education, Office of State and Federal Programs)

have funds decreased in total (by $11.3 million), but funds have also decreased relative to the number of students served. That is, because declines in student enrollments as measured by the ADM have been slight, the effect of declining funds relative to the student have been dramatic. The funding per ADM dropped from $960.71 in 1987-88 to $569.42 in 1991-92, a decrease of 31 percent.

High School Graduation Levels

As a check against misinterpreting the preceding information, it is instructive to look at the number of high school graduates over this period of time. This would indicate whether there was a significant drop in the school population.

The number of high school graduates (see Table 14) declined steadily from 1988 to 1992. This trend is expected to continue through 1995, when the number of graduates will begin to rise again. A 49 percent reduction of direct state appropriations for secondary vocational technical education during this period cannot be justified by a decrease in graduations to a level only 12 percent below that of the 1985-86 school year. This is especially true in light of the fact that ADMs of students in vocational secondary education decreased a total of only 4.8 percent between 1987 and 1992.

Summary

Funding for secondary vocational education declined dramatically from 1985-86. Federal funds were relatively constant from 1985-86 to 1990-91 and then increased by $554,000 in 1992. This was not sufficient to compensate for the marked loss of state funds in 1988-89 which amounted to a 32 percent loss or about six millon dollars in a single year. Because state funding of secondary

Table 14: High School Graduates 1986-1992

Year	Number of Graduates	Percent Change
1986	56,149	Base Year
1987	57,757	2.9%
1988	58,847	4.8%
1989	56,527	4.8%
1990	52,571	.7%
1991	49,569	-11.7%
1992	49,241	-12.3%

(Source: Minnesota Higher Education Coordinating Board Student Record Data Base, 1987-1993)

vocational education programs is so large relative to federal funding, the effects of federal funding are lessened. At the end of the period under study, secondary vocational education in Minnesota was being funded at $11 million in constant dollars per year less than it was funded during the 1985-86 school year—a decrease of nearly 51 percent. At a time when there is increased national interest in preparing workers for high-skill jobs, it would seem counterproductive to cut funding to secondary vocational programs.

Not surprisingly, the decline in funds to secondary vocational education was so massive that it resulted in a decline in funds relative to the enrollment. Student enrollment decreased slightly over the period studied; however, funding declined dramatically. Unless school districts were funding programs from other sources, it would seem that secondary vocational programs—and ultimately their quality and availability—were suffering from severe underfunding from 1989 through 1992.

CHAPTER THREE

Availability of Vocational Technical Education Programs in Minnesota

This section of the report contains information on the availability of continuous and extension vocational education programs in Minnesota's technical colleges, high schools, and secondary cooperative centers. The technical colleges offer courses that are part of a total program leading to a technical college degree as well as individual courses classified as extension.

In this section no effort is made to describe programs over the entire period of time covered by the study; rather, descriptions are limited to the present state of program availability in Minnesota (1993).

Postsecondary Vocational Programs

The Minnesota Technical College System currently has 18 technical colleges with campuses located at 34 sites distributed throughout Greater Minnesota and the Twin Cities metropolitan area. Vocational and technical programs are organized into twelve occupational areas. These occupational areas are:

1. Accounting, Banking, Finance, Computer, and Administrative Support.
2. Agriculture, Horticulture and Natural Resources.
3. Construction.
4. Electronics.
5. Environmental.
6. Food Services,
7. Marketing, Sales, and Management.
8. Health and Hospital.
9. Manufacturing.
10. Media Communications.
11. Public and Personal Services.
12. Transportation and Mechanical.

Distribution of Programs

Minnesota's technical colleges provide a large selection of vocational course offerings. There are more than 200 program majors offered throughout the state. Students who successfully complete a technical college program may receive a diploma, an associate of arts degree or a certificate, depending on the specific program. General education courses in A.A.S. degree programs are generally provided by and at the local state university, community college or some of the University of Minnesota campuses.

Not all programs or even training in all occupational areas are offered at all campuses. Some programs may not generate

enough student interest or employment opportunities to warrant implementing them throughout the entire system. It should be noted that a small program does not necessarily mean poor quality. Rather, it may be more cost-effective to meet a vital need by providing one high quality, well-equipped program.

Historically, Minnesota students who attended a technical college expected to do so near their homes. Increasingly, students are willing to move to take advantage of unique or high-quality programs. Thus, access is not the problem it might have been in the past. Occasionally, a unique program will serve students statewide or nationwide. Student mobility has created a demand for housing assistance when students attend technical colleges outside their locality.

Where Do Minnesota's High School Graduates Go?

In an effort to trace Minnesota's high school students, the state conducts surveys of graduates one year after high school. Information gathered is grouped by gender, race, disabilities, plans after graduation, and other factors. For each of these groupings, information is gathered about educational activities, employment, salaries, employer satisfaction and types of employment. The surveys indicate that 60 percent of all 1991 and 67 percent of all 1992 high school graduates were participating in some form of postsecondary education in Minnesota. Of those students who indicated an interest in attending technical colleges, only 60 percent who expressed an interest actually did attend (Minnesota High School Follow-up, 1992, 1993).

The follow-up data are especially interesting with regard to the distribution of ethnic groups among the various college systems. Table 15 demonstrates the ethnic distribution of 1992 high school graduates among four-year, community and technical colleges as reported by the Minnesota High School Follow-up. Most noteworthy are the differences among ethnic groups in term of educational preferences. Asian students lead all groups in their interest in postsecondary education, especially favoring four-year colleges. Native American and black students were least interested in postsecondary education and only three percent of students who describe themselves as black reported attendance in a technical college. Technical

Table 15: Students by Race - Class of 1992: One Year Later

	Four-Yr. (%)	Comm.C.(%)	Voc.T.C.(%)	Total Post.(%)
Indian	15	11	9	35
Asian	64	12	5	81
Black	38	13	3	54
Hispanic	36	15	18	59
White	47	14	11	72
All Minnesota	47	14	10	71

(Source: Minnesota High School Follow-up, 1993 - Class of 1992)

colleges are selected by roughly ten percent of all high school graduates.

Consolidation and Merger of Systems

Economic pressure in Minnesota, as well as elsewhere, has led to consolidation among some of the technical colleges and a merger of the state university, community college and technical college systems. The merger process, which is to be completed by July 1, 1995, was begun with the expectation of eliminating duplication among the systems and improving student access. The new system, known as the Minnesota State Colleges and Universities (MnSCU), has hired a temporary chancellor and is working hard to bring the systems together. Those community and technical colleges located near each other are in various stages of consolidation. For example, the Duluth Technical College and Duluth Community College Center plan to become one institution. Brainerd-Staples Technical College and Brainerd Community College are planning a merged administrative structure. In addition, they have signed an articulation agreement for the A.A.S. degree with Bemidji State University.

Prior to the merger of the three systems, Minnesota's technical colleges went to a credit-based curriculum in an effort to improve articulation among the systems. This significant change has increased student accessibility to a variety of vocational and other programs. A credit-based system takes into account those people whose schedules do not permit them to attend a technical college on a full-time basis during the traditional school day. These students can pursue programs in the evening or part-time during the day. This type of vocational program structuring is ideal to meet the needs of an increasingly non-traditional student population. It is also the expectation that the credit-based system will allow for future movement among the merged systems.

Postsecondary Extension Programs

The Extension and Customized Training Services division in Minnesota's technical colleges provides a variety of courses. A duplicated headcount of hour-based courses revealed that the technical college system provided training services to more than 431,600 individual students during FY 1992 (State Board of Technical Colleges, 1992a).

The extension services offer courses that are available to businesses on an individual basis. Courses offered through extension are primarily aimed at providing career advancement, licensure upgrading, occupational skills, and customized training for businesses. Extension programs also offer members of the community an opportunity to explore a change of occupations.

Custom Services was developed to meet the needs for upgrading the skills of specific workforce groups within business, industry and government. Custom Services meets training needs by providing assessment, planning, delivery, evaluation, and follow-up for its clients. Representatives of the technical colleges work directly with employers to provide the specific skills needed by the workforce. Training may be made available directly in the workplace or at the technical college.

Secondary Vocational Programs

Secondary vocational education programs are occupationally related programs offered in high schools, cooperative district centers, or in some cases, technical colleges (intermediate school districts). Intermediate school

districts are comprised of several districts joined together to provide vocational education programs for high school, post high school, and adults in a single technical college. The three intermediate districts are located in the metropolitan area and consist of Hennepin Technical College, Intermediate School District 917 and N.E. Metro Intermediate. Secondary vocational cooperatives districts were formed as a way for small districts to provide secondary vocational courses more efficiently. In 1985-86, there were 39 secondary cooperative centers. This number decreased to 32 centers in 1988-89 and, finally, 18 centers in 1990-91.

Secondary programs are available for students in grades 10, 11 and 12. The objective of the secondary programs is to provide (1) in-depth exploration of occupations, (2) occupational competencies sufficient to provide a transition to postsecondary education programs, and (3) the development of the competencies necessary to enter an occupation.

Secondary vocational education programs are organized into the following occupational areas:

1. Agriculture
2. Marketing
3. Business and Office
4. Consumer-Homemaking
5. Service
6. Trade and Industrial Occupations
7. Health Occupations

A January 4, 1994 report, *The Secondary Vocational Education Assessment*, prepared by the Department of Vocational and Technical Education, University of Minnesota, analyzed factors related to accessibility. The study addressed the ability of programs to meet the needs of special populations.

Researchers reported that the secondary system provides for supplemental support of students in many areas including staff salary, curriculum modification, interpreters for the deaf, transportation, and others. Support services for students with disabilities or disadvantages received $446,243, which was 7.6 percent of the state budget. Approximately 21 percent (19,626) of secondary vocational students were members of special populations. According to the report, 40.1 percent of the special population students were enrolled in work experience programs.

Among its recommendations, the report suggested that data be collected on the availability of supplemental support services, employment and postsecondary enrollment, degree of satisfaction with training, and age, gender and other characteristics of special population students. Specifically, the report recommended, "Design, develop and implement a database management system using the best technology and using data elements relating to secondary vocational education that could be easily used throughout the states" (Department of Vocational and Technical Education, 1994, p. 28).

Tech Prep

Tech Prep is a combined secondary and postsecondary program for students who wish to prepare for technical occupations. Tech Prep was designed to offer students an alternative to college-prep. Currently, there are 28 Tech Prep consortia in the state at various stages of developing programs. Four of the consortia are preparing planning grants while 24 of them are implementing the first, second or third year of Tech Prep programs. By the end of 1992, there were 195

Minnesota school districts, 20 technical colleges, 15 community colleges, three state universities, and the University of Minnesota involved in the Minnesota Tech Prep initiative (State Board of Technical Colleges, 1992b).

Postsecondary Enrollment Options Act

This legislation currently in place in Minnesota allows high school students to take courses leading to an associate or a baccalaureate degree at public postsecondary institutions. High school-aged students are allowed to take these courses without cost to them. Student enrollment under this option during the 1991-92 school year was approximately 32,000. Of this enrollment, only 12 percent was attributed to students in vocational courses. They took such courses as aviation, child care, office management and welding (Department of Vocational and Technical Education, 1994).

Summary

Minnesota offers postsecondary vocational education in more than 200 program majors at 34 technical college sites across the state. While the emphasis in vocational education has traditionally been on providing students with programs near their homes, Minnesota's technical colleges attract students from outside their local areas and occasionally from outside the state. It appears that today's students are willing to travel in order to take vocational programs that are unique and of high quality. However, while some vocational students may be more willing to travel for an education, the costs associated with transportation and housing may be a barrier for other students. Also, it is unknown what effect proximity to education may have on at-risk students.

In Minnesota, 60-65 percent of all high school graduates report going on to some form of postsecondary education within one year of graduation. Similarly, about 10 percent of all high school graduates in Minnesota go on to vocational technical colleges within one year of graduation. When high school graduates were surveyed by race, it was found that only 3 percent of students who were black attended vocational technical colleges. Only 54 percent of all black students participated in any form of postsecondary education within one year of graduation. There are important differences among the ethnic groups surveyed in their preferences for postsecondary education. Asians favored postsecondary education, especially that offered in four-year institutions. Blacks, however, were less inclined to postsecondary education and especially to vocational education than the general population.

Secondary vocational programs in Minnesota are available to students in a number of different formats. Programs are available in high schools and cooperative district centers, or, through intermediate school districts, in the metropolitan area. While traditional programs are suffering because of decreased funding and negative stereotypes, some new programs offer hope for vocational technical education at the secondary level. Tech Prep, if it develops as a true alternative to college-prep, has the potential to prepare students for viable futures. The Postsecondary Enrollment Options Act provides an alternative for those students who are impatient with the secondary classroom and anxious to prepare for an occupation.

CHAPTER FOUR

Conclusions

The following conclusions are a direct product of the tables and text contained within the body of this report. While the conclusions below may not reflect cause and effect between funding trends, enrollment levels, and program availability, they do reflect reasonable inferences that can be made.

Postsecondary Conclusions

1. Although direct dollar federal funding to postsecondary vocational technical education increased slightly or stayed level, the constant dollar funding, when corrected for inflation, declined by 4.6% from $11,364,294 to $10,836,678 between FY 1986 and FY 1992 (Table 7, page 12).
2. Similarly, direct dollar state funding to postsecondary vocational technical education increased 20%, while constant dollar funding, corrected for inflation, declined by 3.3% from $137,163,809 to $132,618,941 between FY 1986 and FY 1992 (Table 8, page 12).
3. The number of full-time technical college students has remained steady from 33,788 FYEs (Full Year Equivalents) in FY 1986 to 33,389 FYEs in FY 1992 with a slight dip to 31,460 FYEs in FY 1989 (Table 9, page 13).
4. The number of extension technical college students has increased dramatically from 5,528 FYEs in FY 1986 to 8,115 FYEs in FY 1991. It should be noted that the conversion of many extension courses from an hour-based FYE to a credit-based FYE between FY 1991 and 1992 accounts for the decline seen in 1992 (Table 10, page 14).
5. While postsecondary technical college enrollments have remained steady or increased, the number of high school graduates has declined by about 12% from 56,000 in FY 1986 to 49,000 in FY 1992 (Table 14, page 20). However, the number of graduates is expected to increase again after 1995.
6. Total constant dollar funding from both the federal and state was 3.4% lower in FY 1992 than it was in FY 1986, declining from approximately $148 million to $143 million (Table 11, page 15).

Secondary Conclusions

1. Direct dollar federal appropriations for secondary vocational education increased by 50% from 1.1 million in FY 1991 to 1.8 million in FY 1992 because of changes in both the Perkins Act (1990 vs. 1984) and the funding formula negotiated between the State Board of Education and the State Board of Technical Colleges for splitting Perkins funds (Table 6, page 11).

2. Direct dollar state appropriations for secondary vocational education decreased during the period studied from $21 million in FY 1986 to $12 million in FY 1992 (Table 12, page 18), a reduction of 44%.
3. Total funding (corrected for inflation) for secondary vocational education available from both the federal and state governments declined by about 50% from $22 million in FY 1986 to $11 million in FY 1992 (Table 12, page 18).
4. Enrollment in secondary vocational education as measured by ADMs was steady to slightly decreased from about 20,000 in 1987-88 to 19,000 in 1991-92 (Table 13, page 19).
5. Constant dollar funding per ADM (a measure of student enrollment) declined from $960.71 in 1987-88 to $569.42 in 1991-92 (Table 13, page 19). This is a considerable decrease in funding.

EPILOGUE

The study of funds distribution for vocational education in Minnesota continues to present an interesting and complex problem, one which resists clear-cut answers and recommendations. While such clarity may not be possible because of impending changes at the federal and state levels, it is imperative to consider the recent state of funding and program availability to inform any future planning. Merger of the community colleges, technical colleges and state university systems in Minnesota by 1995 presents an enormous challenge to all parties; especially to the technical colleges formerly under the control of the local school districts. At the federal level, new legislation that may change the way funding is provided to states also presents an area of uncertainty. This epilogue suggests some questions for further study and observation, even as changes occur at the state and federal levels.

Postsecondary Issues

There are several issues related to postsecondary education that arose when the current funding levels and program availability were reviewed.

Issue #1

What effect will the merger of the technical colleges with the community colleges and state university system have on technical college funding and program availability?

Assumptions

One effect of the merger will be centralized governance of the state technical colleges by the Higher Education Board. In 1985 and again in 1987, the Council recommended the creation of a single state level governance system for the technical colleges. The Council supported this position because it believed that state level governance would provide institutional flexibility to meet changing student and societal needs.

Funding of the technical colleges as part of the merged system has long been a concern to those who work in vocational education. It is well known that technical education is very costly. The concern has been that political power plays and status might be the determinants of who receives funding to the detriment of vocational education. However, on the national level there seems to be a new appreciation of the importance of highly skilled technical workers in a competitive global economy. The assumption is that highly skilled workers will attract high paying jobs. Perhaps the time has come for renewed support of vocational technical education.

Certainly one of the motivating factors for the merger of the three systems has been to streamline services and eliminate program duplication among the systems. It is important to note that program availability may mean different things to different student populations. While some postsecondary students may not find traveling or moving to be an obstacle to getting an education, others

may. While governance of the new postsecondary system may be centralized, it is important for programs to be sufficiently distributed to meet the needs of potential students across the state.

Issue #2

Will the proposed merger meet the needs of an increasingly nontraditional student population? How will the merger affect recruitment? Why are some ethnic groups not attracted to vocational education? Will the merged system benefit, have no effect on, or be detrimental to technical college students?

Assumptions

There is a need to be vigilant in regard to the status of technical college student populations. Historically, they have not been rewarded by their past school experiences. They may not view postsecondary education as an exciting opportunity. It is important that entry points for the merged systems be accommodating for potential students of all of Minnesota's postsecondary schools. It is very possible that the merged systems will progress without significant problems for the various school populations. Without further study, however, it would be difficult to know if the new governance structure is meeting the needs of all students.

Under the present system, 60 percent of the students in the class of 1991 who indicated an interest in attending technical colleges actually did attend (Minnesota High School Follow-up, 1992). It would be informative to know why 40 percent of these students did not follow through with plans to attend technical college. Did they experience barriers that prevented their attending? Did students change their minds?

Secondary Issues

There was one issue related to secondary vocational education that arose when funding levels and program availability were reviewed in this report. Consideration of this issue eclipses all other concerns.

Issue #1

Even under a restructured model of secondary vocational education, has state support for these programs dropped below an acceptable level? Can Perkins-supported programs like Tech Prep or programs sponsored under the aegis of the School to Work Opportunities Act succeed without an appropriate financial commitment from the state as serious as that from the federal government?

Assumptions

It is apparent that, across the nation, there is resurgence of support for school-to-work programs. Whether identified as Tech Prep or youth apprenticeship, new models of vocational and technical education are being developed in schools and in the communities in which they operate. Many individuals strive to place as much distance as they can between their new programs and the term vocational. Whatever such initiatives may be called, there is a sense of renewal throughout this country for educational programs that prepare people for employment.

Minnesotans must decide on which side of this wave of renewed interest in vocational education they will participate. Our state can choose to be a leader or a follower in this movement. Somehow, however, the state must find the means to support these initiatives with commitment, activities, and funds.

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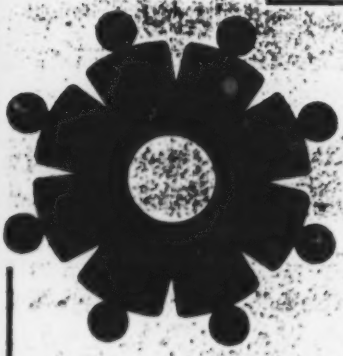

The logo of the State Council on Vocational Technical Education is an abstract representation of the citizen-councilors assembled at a round table. Designed by a commercial art student at Alexandria Technical College, the design was selected in 1982 from 69 entries submitted by vocational students in Minnesota's high schools, secondary cooperative centers, and technical colleges. The Council made its selection on the basis of a recommendation by a panel of representatives from the graphic arts, public relations, and media industries in Minnesota.

Purpose of the Council

The State Council on Vocational Technical Education is designed to further public-private collaboration for the advancement of quality vocational programs responsive to labor market needs. Established in 1969 and designated as a state agency in 1985, the Council comprises 13 members appointed by the Governor. Seven members represent the private sector interests of agriculture, business, industry, and labor. Six of the members represent vocational technical education institutions, career guidance and counseling organizations, special education, and targeted populations.

The Council advises the Governor, the State Board of Technical Colleges, the State Board of Education, the Governor's Job Training Council, the business community, the general public, and the U.S. Secretaries of Education and Labor. The Council advises on development of the annual state vocational plan; provides consultation on the establishment of program evaluation criteria and state technical committees; analyzes the spending distribution and the availability of vocational programs, services, and activities; reports on the extent to which equity to quality programs is provided targeted populations; recommends procedures to enhance public participation in vocational technical education; recommends improvements that emphasize business and labor concerns; evaluates the delivery systems assisted under the Carl D. Perkins Vocational Education Act and the Job Training Partnership Act (JTPA); and advises on policies that the state should pursue to strengthen vocational technical education, as well as initiatives that the private sector could undertake to enhance program modernization.

To enhance effectiveness in gathering information, the Council holds at least one town meeting each year at which the public is encouraged to express its concern about vocational technical education in Minnesota. To enhance its effectiveness in providing information, the Council publishes a quarterly newsletter, an annual directory, and a biennial report. These publications as well as project and activity reports are available to the public.

Information on the date, time, and location of meetings and other activities is available by calling the Council Offices at 612/296-4202.

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